

# Editorial

## The death of amalgam

Many questions relating to the safety of mercury in dental amalgam remain to be answered. Controversy abounds, but surely it will not be long before a combination of health and environmental concerns, not science, spells the death of amalgam.

The approach of the American Dental Association (ADA) to the issue of amalgam removal to address health concerns is unreservedly hardline. According to the ADA, "... the removal of amalgam restorations from the non-allergic patient for the alleged purpose of removing toxic substances from the body, when such treatment is performed solely at the recommendation or suggestion of the dentist, is improper and unethical."<sup>1</sup> The published scientific data, upon which this hardline approach is based, are incomplete; what evidence there is lends support to the position of the ADA.

A good case can be made for never placing another amalgam restoration: questions remain about the safety of using mercury, a known toxic material, in the human oral cavity; amalgam is unesthetic compared to the latest bondable materials; amalgam restorations corrode and leak; and other materials that do not contain mercury are available.

Alternatively, an excellent case can be made for continuing the use of amalgam: the scientific data, although incomplete, do not support those who would claim it causes everything from multiple sclerosis to suicidal tendencies; amalgam is a forgiving material that tolerates difficult placement conditions better than do competing materials; the level of expertise in amalgam placement is high because of many years of use; it is a less-expensive treatment than many of the alternatives, thus making restorative treatment an option for many more people; and significant experience with the new alternatives is nonexistent for many practitioners.

I have no sympathy for those practitioners who would exploit the public on this issue by removing every amalgam restoration in every patient. However, questions about safety remain. Therefore, dentists who have a genuine concern for their patients' health and seek to alleviate patients' concerns through removal of amalgam restorations should have the right to render the

treatment, under the umbrella of informed consent, without being accused of unethical practice.

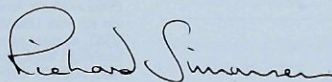
Mass removal of all amalgam restorations, however, would do more harm than good, by shortening individual tooth life through cumulative trauma from multiple restorations. Additionally, amalgam is a comparatively inexpensive restorative material. Dental health care must be affordable and available, particularly for those who can afford it least.

Replacement of all amalgam restorations is, at present, neither a realistic nor an economic option for society. But choice of some other restorative material is an option that some patients have and that some practitioners are willing to provide. This choice should be honored.

After all is said and done, we are still left with the question, "Is there anything that is placed in the human mouth for dental purposes that is completely safe for every member of the human race?" It is impossible to prove that any substance is not harmful to the human body in continuous microdoses. Damage may take years to develop, and the causative link may be impossible to establish.

Questions remain; the writing, however, is on the wall. Dental amalgam's days are numbered, despite what future epidemiologic studies may tell us. The profession must explore and embrace alternative materials. Alternative treatment options must be introduced into the curricula of our dental schools immediately. The students of today will not be using amalgam tomorrow.

The coffin is open, and waiting.



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1. American Dental Association, Council on Ethics, Bylaws, and Judicial Affairs: Principles of ethics and code of professional conduct. *J Am Dent Assoc* 1990;120:585-592.